REMARKS

The Non-Final Office Action mailed May 14, 2009 considered claims 1-17 and 19-21. Claims 1-14 were allowed. Claims 15-17 and 20-21 were rejected under 35 U.S.C. 102(b) as being anticipated by Mitchell (US 5,903,278) hereinafter *Mitchell*. Claim 19 was rejected under 35 U.S.C. 103(a) as being unpatentable over *Mitchell* in view of Bennett (US 7,068,290) hereinafter *Bennett*.

By this amendment, claims 19 and 21 are amended[1], claims 15-17 and 20 are cancelled and claims 22-23 are added. Accordingly, claims 1-14, 19, and 21-23 are pending, of which claims 1, 19, 21, 22 and 23 are independent claims.

Applicants initially thank the Examiner for the allowance of claims 1-14. Applicants appreciate the thorough examination given these claims. Applicants note that small amendments have been made to claim 1 to correct small typographical and antecedent basis errors. The amendments do not change the scope of allowed claim 1.

Newly added claims 22 and 23 are respectively a computer program product claim and a computer system claim that correspond to allowed independent claim 1. Accordingly, Applicants note that new claims 22 and 23 are allowable over the cited art of record for at least the reasons that claim 1 is allowable over the cited art of record. Allowance of these claims is therefore respectfully requested.

Applicants also note that the cancellation of claims 15-17 and 20 have rendered the rejection of these claims moot.

Claim 19 recites a computer readable medium storing computer executable components of a diagram system. The diagram system includes a diagram component that stores at least one shape element and has a graph object. The graph object is employed for hittesting for testing a shape that has been user dropped by dragging. The hittesting returns information which indicates if the shape has been dropped outside a boundary of a target shape, on the boundary of the target shape, inside the filed-area of a two dimensional shape and/or on a line of a one-dimensional shape.

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[1]Support for amendments to claim 19 is found in the throughout the specification, but especially in the abstract, paragraphs 2, 6, 66, 71, 78, and 96 of the originally filed specification. Support for amendments to claim 21 is found in the throughout the specification, but especially in Figure 19 and paragraphs 31, 79, 97, 167, 267, 447 of the originally filed specification.

The diagram system also includes an application program interface component that includes a control that facilitates access to the diagram component. The control maintains state information associated with the diagram and with an underlying data document. The application program interface employs a common framework to keep the diagram component and the underlying data document synchronized. The underlying data document is a domain specific language model representing both model elements and presentation elements.

Applicants respectfully submit that the cited art of record does not anticipate or otherwise render the amended claim 19 unpatentable for at least the reason that the cited art does not disclose, suggest, or enable each and every element of claim 19.

With respect to *Mitchell*, this reference teaches a method for analyzing an image rendered by a graphics application. Primitive API calls are provided to a graphics library used to render the image. The image may then be re-rendered by an analyzer tool using the same colors as the initial rendered image using encoded information in the colors. (See abstract, column 2, lines 1-19, and column 6, lines 31-46).

With respect to *Bennett*, this reference discloses an authoring system to assign a real geo-spatial position to sensory effect data. A CSL object contains methods for both a GUI control process used by an authoring tool and a behavior process used by a rendering tool. The CSL object defines various functions, including a hittest that determines whether the object should report itself selected in response to a user mouse click. (See abstract and column 10, lines 1-21 and table 1).

Accordingly, *Mitchell* and/or *Bennett* fail to teach or suggest (as recited in claim 19):

- a diagram component that stores at least one shape element and has a graph object employed for hittesting for testing a shape that has been user dropped by dragging, *wherein the hittesting returns information which indicates if the shape has been dropped outside a boundary of a target shape, on the boundary of the target shape, inside the filed-area of a two dimensional shape and/or on a line of a one-dimensional shape*

- an application program interface component that includes a control that facilitates access to the diagram component, the control maintaining state information associated with the diagram *and with an underlying data document, wherein the application program interface employs a common framework to keep the diagram*

> *component and the underlying data document synchronized, wherein the underlying data document is a domain specific language model representing both model elements and presentation elements*

The other art of record fail to compensate for the deficiencies of *Mitchell* and/or *Bennett*, either singularly or in combination.

Accordingly, the cited art of record fails to teach or suggest either singularly or in combination:

. . .

> a diagram component that stores at least one shape element and has a graph object employed for hittesting for testing a shape that has been user dropped by dragging, wherein the hittesting returns information which indicates if the shape has been dropped outside a boundary of a target shape, on the boundary of the target shape, inside the filed-area of a two dimensional shape and/or on a line of a one-dimensional shape; and,
>
> an application program interface component that includes a control that facilitates access to the diagram component, the control maintaining state information associated with the diagram and with an underlying data document, wherein the application program interface employs a common framework to keep the diagram component and the underlying data document synchronized, wherein the underlying data document is a domain specific language model representing both model elements and presentation elements.

as recited in claim 19, when viewed in combination with the other limitations of claim 19. For at least this reason, claim 19 patentably defines over the art of record.

Claim 21 recites a method for diagramming. The method includes managing presentation elements comprised of diagrams and shapes in a same context as correspondingly depicted design elements of a diagram on design surface in an object model diagramming system. This avoids synchronization issues of mirrored presentation and design classes.

The method also includes providing an object model application programming interface. The interface includes a single diagram control for the design surface that maintains state information associated with the diagram by capturing events.

The method also includes rendering shapes of the diagram that are responsible for painting themselves and for responding to user interaction via a user interface. This results in making implementation very light weight and independent of any specific diagram.

At least a one shape of the diagram is a parent shape having an associated child shape. The child shape inherits resources from the parent shape. The child shape also conforms to a set of rules defining where it can be located and how it can be sized relative to the parent shape. The parent shape and the child shape may be in a nested relationship such that the child shape is fully contained within the parent shape.

Applicants respectfully submit that the cited art of record does not anticipate or otherwise render the amended claim 21 unpatentable for at least the reason that the cited art does not disclose, suggest, or enable each and every element of claim 21.

With respect to *Mitchell*, this reference teaches a method for analyzing an image rendered by a graphics application. Primitive API calls are provided to a graphics library used to render the image. The image may then be re-rendered by an analyzer tool using the same colors as the initial rendered image using encoded information in the colors. (See abstract, column 2, lines 1-19, and column 6, lines 31-46).

Accordingly, *Mitchell* fails to teach or suggest (as recited in claim 21):

- rendering shapes of the diagram that are responsible for painting themselves and for responding to user interaction via a user interface, making implementation very light weight and independent of any specific diagram, *wherein at least a one shape is a parent shape having an associated child shape, wherein the child shape inherits resources from the parent shape, the child shape conforming to a set of rules defining where the child shape can be located and how the child shape can be sized relative to the parent shape, wherein the parent shape and the child shape may be in a nested relationship such that the child shape is fully contained within the parent shape.*

The other art of record fail to compensate for the deficiencies of *Mitchell*, either singularly or in combination. Accordingly, the cited art of record fails to teach or suggest either singularly or in combination:

. . .

> rendering shapes of the diagram that are responsible for painting themselves and for responding to user interaction via a user interface, making implementation very light weight and independent of any specific diagram, wherein at least a one shape is a parent shape having an associated child shape, wherein the child shape inherits resources from the parent shape, the child shape conforming to a set of rules defining where the child shape can be located and how the child shape can be sized relative to the parent shape, wherein the parent shape and the child shape may be in a nested relationship such that the child shape is fully contained within the parent shape.

as recited in claim 21, when viewed in combination with the other limitations of claim 21. For at least this reason, claim 21 patentably defines over the art of record.

In view of the foregoing, Applicant respectfully submits that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicant acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicant reserves the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicant specifically requests that the Examiner provide references supporting the teachings officially noticed, as well as the required reason why one of ordinary skill in the art would have modified the cited references in the manner officially noticed.[2]
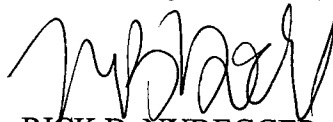
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[2] Furthermore, although the prior art status of the cited art is not being challenged at this time, Applicant reserves the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at (801) 533-9800.

The Commissioner is hereby authorized to charge payment of any of the following fees that may be applicable to this communication, or credit any overpayment, to Deposit Account No. 23-3178: (1) any filing fees required under 37 CFR § 1.16; and/or (2) any patent application and reexamination processing fees under 37 CFR § 1.17; and/or (3) any post issuance fees under 37 CFR § 1.20. In addition, if any additional extension of time is required, which has not otherwise been requested, please consider this a petition therefore and charge any additional fees that may be required to Deposit Account No. 23-3178.

Dated this 14th day of August, 2009.

Respectfully submitted,

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